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ABSTRACT

The primary function of banks during economic transformation is seen to be provision of an efficient payments mechanism. The lack of banking skills, particularly in credit allocation, is seen as the major problem in achieving stable monetary systems. This is a problem which can be expected to last many years. The solution is to limit banks to very safe assets (initially central bank liabilities). Combining such safe banks with a monetary rule would provide stable monetary systems during transition.

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CREATING STABLE MONETARY SYSTEMS IN POST-COMMUNIST ECONOMIES

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INTRODUCTION

Post-communist economies (PCEs) usually enter the transition to capitalism with a high rate of inflation. This is, first, because price liberalisation without a hard budget constraint or unemployment must lead to high inflation [Rostowski 1989]. Second, the weakening of communist political power in the period before the overthrow of communist governments has often led to a weakening of such budgets constraints as there were in the Soviet-type economy - particularly as regards wages. Post-communist governments are thus often faced with the need to tackle high or very high inflation just at the time when they also have to guide the country through the transition to capitalism. Creating stable monetary systems in PCEs is thus vital both in the short and the long term. Yet a major hindrance in the achievement of this aim is the nature of banking systems in these countries. This paper aims to draw lessons from banking reform in the more advanced countries (particularly Hungary and Poland) for what one can call the "second wave" reformers (the countries of the former Soviet Union and some of the Balkan states). In particular, we consider whether the present generally accepted "main sequence" of banking reform is likely to result in the creation of stable banking, and therefore monetary, systems. What we call the "main sequence" consists in: (1) splitting up the traditional Soviet-type monobank into a number of state-owned commercial banks (SCBs); (2) liberalizing entry by private (mainly domestic) banks; (3) trying to privatize the SCBs.

There are two pre-conditions for a stable monetary system: a stable banking system and an anchor binding the domestic currency to foreign currencies. Adopting

a fixed exchange rate is insufficient in itself to achieve this, particularly in the absence of central banking skills. Some kind of "monetary rule", providing an automatic link between the money supply and reserve holdings of an outside asset is necessary [Simons 1936]. A second question we consider is what kind of monetary rule is suitable for PCEs at various levels of development of their banking systems.

CREATING A STABLE BANKING SYSTEM

1. The "Main Sequence" of Banking Reform in PCEs

In Soviet-type economies the banking system consisted of a state monobank, which combined the functions of a central bank and of the monopolistic commercial bank. There were specialised banks for savings, foreign trade, sometimes investment and some other functions such as agriculture, but these were parts of the monobank in balance sheet terms, in that they had to hold 100% reserves against deposits, and received financing for any lending from the central bank in the form of refinance credit[1].

The main sequence of banking reform was initiated in Hungary in the mid-1980s, and consists in a number of steps. The first is usually the hiving off the commercial operations of the monobank into a number of state owned commercial

[1] Sometimes (e.g. in the USSR) they did not formally receive financial resources as such, but rather the right to extend credit according to their credit plan which was determined for them by the state bank. Once the credit plan was received there was no need to actually obtain financial resources. These were created by simply debiting the so-called "inter-branch circulation" (the "mezhdufilialny oborot" in the USSR). In other words the specialised banks, and indeed the branches of the state bank, created their own liabilities just like a central bank. Control of this central bank money was exercised by control of credit creation by State Bank headquarters via the credit plan. Once the Spetsbanki and the Republican Central Banks could draw up their own credit plans (from 1989 and 1990 respectively) they effectively became central banks, because they could still debit the "inter-branch circulation" to finance the credit they extended.

banks [SCBs]. In Hungary there were three of these, and in Poland, where the reform took place in 1989, nine. These SCBs and the specialised banks were then required to hold only a fraction of their deposits as reserves, while the state bank concentrated on classical central bank functions[2]. In this way the basic structure of a two tier banking system of the western kind was created. At the same time the creation of private banks, both domestic and foreign, has been allowed. The next step in the reform is supposed to be the privatization of the SCBs, once they have developed sufficiently, both organizationally and in terms of their financial health, for this to be feasible[3].

An alternative path has been followed in Russia and Ukraine. There the monobank first had three specialised banks split from it in 1989. Since these "Spetsbanki" could create money and were thus effectively central banks, the State Bank encouraged the creation of commercial and co-operative banks, the former belonging to various state enterprises and organs (including Ministries!), the latter to effectively private so-called co-operatives. This trend continued once the republican central banks got their independence from USSR Gosbank, and was strengthened by the creation of independent banks out of local sections of the "Spetsbanki" during 1991. The result was the creation of thousands of banks in the former Soviet Union [FSU].

Transitional PCE banking systems initially tend to operate with very high

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[2] In Poland the central bank still engaged in commercial operations, though on a much reduced scale, at the end of 1992.

[3] At the time of writing, none of the Hungarian SCBs has been privatized, in the Czech and Slovak Republics the SCBs have been partly privatized in the framework of the mass privatization voucher program, and in Poland two SCBs are "soon to be" privatized.

ratios of reserves to deposits. This is partly the result of the fact that they start out as monobank systems with 100% reserve backing of deposits, partly because of the extreme inefficiency of the payments system, which requires the maintenance of large commercial bank deposits at the central bank, and partly because of the great ease of obtaining central bank credit by commercial banks in the pre-stabilization period. Thus in the Soviet Union in June 1991 enterprise deposits were almost 60% backed by reserves, whereas household deposits at the Savings Bank were 100% backed. In Poland, just before the stabilization programme at the beginning of 1990, more than three quarters of deposits were backed by reserves (mainly voluntary) at the central bank. Yet a rapid reduction in central bank reserve backing of deposits is characteristic of Post-communist banking systems once stabilization and market oriented reform begin in earnest. Thus, a year after the beginning of the "big bang" in Poland the ratio of reserves to liabilities had fallen to 30%, and after seventeen months it stood at 20%. Thus Poland moved rapidly from a situation in which central bank money was easily obtainable and backed a very high proportion of deposits to one in which it became far less available, yet was substituted for by deposits at commercial banks backed by credits.

2. The Inside Money Problem

In PCEs most banks are not capable of allocating credit on a commercial basis among borrowers, as they do not have the skills to assess the creditworthiness of clients, the likely profitability of a project requiring financing, or the riskiness of either. The reason for this is that most banks are not only state owned, but until recently were part of a monobank system, in which all deposits were effectively

liabilities of the central bank, and thus had their nominal value openly guaranteed by the state. The monobank had two main functions:

a) a savings bank system which funnelled savings either to the state budget or to state enterprises on the basis of central planners' decisions via the monobank, making such loans quasi-budget expenditures;

b) a control system by which central planners could check up on, and direct, the activities of state enterprises, with respect to both current payments and financial resources for investment.

When a PCE switches from a monobank to a two tier banking system, it is moving from a situation in which all money is "outside money" to one in which most money is inside money, i.e. the liabilities of the banks instead of the state[4]. We saw that upon stabilization there occurs a rapid increase in the ratio of inside to outside money, i.e. the money multiplier increases sharply. This inside money is backed by bank assets, mainly credit to the non-government sector. The problem is that this backing for bank deposits may become highly uncertain as the true value of bank assets (excepting reserves held at the central bank) may become significantly less than the value of deposit liabilities, because of the low quality of credit allocation.

The rigorous application of market principles could then lead to the bankruptcy of many banks, and a reduction in the money supply resulting from depositors receiving only a fraction of their claims[5]. The potentially disastrous effects

[4] Unlike SCBs a central bank does not have limited liability, and cannot, even theoretically go bankrupt.

[5] And from less use of banks by a population concerned about the possibility of further bank failures, leading to a fall in the money multiplier and a "multiple contraction of deposits effect".

on the real economy of such a run on the banking system are well known [Friedman and Schwartz, 1963]. On the other hand, bailing out the banks through government recapitalization of their equity bases as is being done in Poland will create a severe moral hazard problem, as the banks will be confirmed in their belief that they can continue irresponsible and incompetent lending practices safely[6]. The resulting regime could be intrinsically inflationary, as banks may offer excessively high interest rates on their liabilities and grant credits without attention to the quality of the borrower / project, believing that bad loans would be made good by the authorities. Furthermore, unless the money for bank recapitalization was obtained through taxation or government borrowing, successive bank recapitalizations could become a roundabout way of printing money[7]. The lack of banking skills in PCEs thus introduces a fundamental instability into their monetary systems. Until this problem is resolved, macroeconomic stability will remain hard to attain.

3. Implications for "Main Sequence" Reform of the Banking System

In the long run the problems described above can be solved in one of two ways. The first is the development of credit assessment, liability management, and other banking skills in the banking systems of PCEs, and sophisticated bank supervision skills in the bank supervisory authority - in other words through the development of the skills necessary to provide the microeconomic underpinning of a banking system along lines current in the West.

If this is the path followed then it would be prudent for the first principle of

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[6] In the former Czecho-Slovakia the same was done by removing a large part of bad credits from the books of the SCBs and into a "Consolidation Bank".

[7] Poland now finds itself threatened with exactly this situation.

banking system evolution to be that in the short term the stability of the monetary system must have priority over the freedom of action of the banks themselves in the management of their assets and liabilities. In other words, in the initial phases of the "main sequence", when supervisory and banking skills are rudimentary, bank regulation needs to be rigorous and based on simple rules. This is because of the vital role of macroeconomic stability in successful economic transition from state ownership and central administration of the economy to capitalism.

The usual argument against tight regulation, which stresses that tight regulation leads to disintermediation [Goodhart, 1989] is largely irrelevant in a context in which people have so little possibility of informed choice between risky and safe banks that the authorities feel themselves obliged to guarantee all deposits. The development of a dual system in which deposits at strictly regulated banks are known to be safe, while loans to unregulated non-bank financial institutions are clearly known to be not guaranteed by government seems healthier than the alternative by which all deposits are a contingent liability of a state budget which has no effective control of the degree of risk to its exposure. In the West the state tries to limit this exposure by sophisticated and light regulation of the whole of the banking system, but in PCEs such regulation is likely to be ineffective for a long time because of a lack of skills.

What methods of rigorous yet relatively simple regulation can central bank authorities in PCEs apply? First, banks can be obliged to maintain some obligatory reserve ratio. However, reserve ratios common in the Western world (in the 10-15% range) would probably be insufficient, and ratios above 25% on current accounts seem closer to what might be initially required to ensure a stable monetary system

for a Post-Communist economy. High reserve ratios reduce the variability of the money multiplier, and thus of the tendency of the money supply to vary in a pro-cyclical way. They also reduce the share of bank assets held in the form of claims against the non-bank sector, which is particularly important in PCEs, since it is these very claims whose value is uncertain because of the shortage of credit assessment skills in banks. If the PCE concerned also had some form of monetary rule (i.e. did not have a lender of last resort), such obligatory reserves (unlike in the West) would have to be available to the banks to meet the liquidity demands of their depositors. Use of reserves by a bank would then trigger stricter supervision by the bank supervisory authority. Second, banks can be obliged to hold high capital/asset ratios, so that losses resulting from bad loans are borne by the owners of the bank's capital and not by depositors or taxpayers (as happens if the bank is bailed out by the state). Again, given low banking skills, capital/asset ratios of 25-30% would seem to be prudent. Finally, banks need to be privatized, as only private owners of bank equity will exercise the requisite degree of control over bank management, so as to secure their equity. As banking and supervisory skills increased, and as the macroeconomic situation stabilized, the stringency of regulation could be reduced by gradual reductions in obligatory reserve and capital adequacy ratios, and the introduction of more sophisticated forms of regulation (e.g. weighting exposure by risk, limiting concentration of exposure, etc.).

In the early stages of banking system evolution, the minimum desired ratio of central bank to inside money in the economy can also be maintained through a policy of tight credit limits on the banks. Whether credit limits or high obligatory reserve and capital/asset requirements are chosen depends on the level of skills of central

and commercial bank staff. Control of capital/asset ratios in particular requires an ability to assess the degree to which loans need to be written down.

A dilemma would arise in this case regarding the treatment of western banks. High capital adequacy ratios reduce the rate of return on bank capital. When applied to domestic banks with low skills they constitute a form of insurance for depositors and for the government, which is the ultimate guarantor of deposits in the regulated part of the system. If applied to reputable western banks with good banking skills they would be a barrier to entry, and thus a drag on the development of an efficient banking sector. Branches of foreign banks could remain in the unregulated, unguaranteed, part of the system, as long as they were subject to the supervision of their national bank supervisory authorities, and if the capital of the whole bank was legally subject to make good the losses of its domestic branch. The foreign banks might then take over the whole of the domestic market (having higher skills and lower capital costs).

Thus PCEs are faced with four alternatives:

1) an inadequately regulated and excessively guaranteed banking system, which will be microeconomically inefficient and macroeconomically unstable;

2) a dual system, based on domestic banks, part of which is strictly regulated and guaranteed, while the other is lightly regulated but unguaranteed. The stringency of regulation in the strictly regulated sector would decline as skills improved. Microeconomic efficiency would initially be low, but would slowly improve, while macroeconomic stability would be good;

3) a lightly regulated system based mainly on foreign banks;

4) some mix of (2) and (3).

Which system out of options (2) to (4) a country will end up with would depend on the desire of foreign banks to enter the market, and the rate at which the banking skills of domestic banks developed, as well as the political willingness of the authorities to allow foreign entry.

4. The 100% Reserve Banking System

An alternative approach would be to start from the proposition that a banking system which combines the functions of payments system and allocator of savings may be fundamentally unstable whatever the level of banking skills, but that it is certain to be so if such skills are lacking, and that such skills cannot be developed in the time required, given that macroeconomic stabilization is essential for successful economic transformation. Critics of bank based monetary systems often stress the mismatch between the term structures of bank assets and liabilities, with liabilities being extremely short term (i.e. money) and assets being far longer term. One proposed solution, what one might call the traditional "sound banking" view, is that banks should have more short term assets on their books. The problem is that such assets can never be sufficiently short term to make their maturity correspond to that of bank liabilities, and of course, being liabilities of the private sector, they are subject to the risk of default. Furthermore, as Simons [1936] pointed out, an increase in the amount of very short term liabilities of non-bank businesses to banks actually increases the susceptibility of the economy to sharp fluctuations in the nominal money stock, as banks can relatively easily refuse to roll over short term debt as it comes due. In the absence of a central bank operating in a discretionary manner (i.e. in the presence of a monetary rule) this susceptibility to money stock fluctuations could become a reality, leading to profound economic depression.

Simons therefore suggested that both the asset and liability sides of banks' balance sheets be reformed. Those financial institutions whose liabilities would continue to be deposits (i.e. money) would be obliged to keep 100% of their assets in the form of short term government (or central bank) liabilities. In other words, the

payments system function of the banking system would be performed by what was, from the balance sheet point of view, effectively a monobank system of the Soviet type. If these reserves did not pay interest (the question is discussed below), then users of the payments system would have to pay charges. This would prevent the waste of the resources going into the performance of this function. On the other hand, those institutions which no longer held deposit liabilities (i.e. non-bank financial institutions) would be free of any reserve requirements, and only they would be able to undertake the savings allocation functions of the banking system. Simons was very dubious as to the feasibility proposals for eliminating the imbalance between the term structures of bank assets and liabilities by allowing non-banks to take only long term deposits and to make only long term loans (the problem is one of policing or regulatory race). His solution was, therefore, to limit non-banks to granting and taking equity participation (i.e. transforming them into investment trusts or Islamic banks).

If we accept Simons' criticism of western banking systems, then maybe the financial systems of PCEs should follow a quite different evolutionary route to that pursued so far in their transformation. PCEs in the early stages of economic transformation do not have banking systems, and they have a single integrated payments system. This payments system is extremely inefficient and urgently needs to be reformed. This could be done either by splitting up the existing monobank into competing money warehousing and payments companies (WPCs) or by allowing new, private, WPCs to be created. All WPCs would be obliged to keep all of their assets either as reserves at the central bank, or at whatever clearing and settlement centre(s) they wished to create (the clearing and settlement centre(s) would then keep

its/their reserves at the central bank). The freedom of the WPCs to create their own clearing and settlement centres is vital[8], as the inefficiency of the monobank in managing the payments system stems from its state owned nature, and the achievement of payments and settlement times comparable with those in the West is important for the overall economic efficiency of PCEs.

As they would be unable to lend out deposits WPCs would be obliged to charge for their services, unless the state decided to subsidize the development of the payments system by paying interest on WPCs reserves. This could be done by allowing WPCs or clearing centres to hold their reserves in treasury bills or bonds. One could argue in favour of this on the grounds of some "public good" aspect of the payments system. WPCs would then compete for deposits, as these would generate reserves which brought in interest. Those providing the best payments services would get the most deposits, thus the most reserves and the most interest payments. It can be argued that lender of last resort support to a two tier banking system by the authorities is similar to paying interest on reserves to WPCs since it allows banks to take greater risks with their liquidity and asset positions at no cost to themselves. The tab is picked up by the authorities, which then either fund the expenditure through taxes, or by creating more central bank money. In a 100% reserve system there is no liquidity or solvency risk for the authorities. They can therefore afford to pay interest on the reserves, and this will not be inflationary as long as the expenditure is funded through taxation not emission.

As PCEs do not have the investment trusts which the Simons-type system

[8] However, to prevent barriers to entry refusal to allow access to a clearing system by its participants, as is happening in Poland, would need to be forbidden under anti-monopoly legislation.

requires, the conditions which make it possible for such trusts to emerge need to be created. However, the legal infrastructure for such trusts is much simpler than that required by western-type banks. Ordinary company law should be sufficient, as investment trusts can be ordinary companies which issue their own shares and which then use the financial assets they accumulate in this way to buy the shares of other existing companies or to create new companies[9]. It is often pointed out that even in a mature capitalist country relatively few households own shares: people will first wish to hold property they can directly control, then nominally denominated bank deposits and only last financial assets whose nominal value is volatile. Given the lack of track record of financial institutions in PCEs, this unwillingness to buy the shares of investment trusts would be understandable. As a result, one can expect investment trusts to develop slowly in PCEs. However, a similar unwillingness to deposit one's money in banks would probably exist, were it not for the assumption of a government guarantee of deposits. In the absence of such an implicit guarantee people would have to chose between depositing their money in WPCs (which would not pay interest and might charge for the services they provided), holding cash, buying nominally denominated commercial paper and buying shares in investment trusts. Under such circumstances the relative attractiveness of investment trusts might be somewhat greater than at present, particularly if WPCs were not subsidized by the state.

The fact that as a result of the slowness of the development of investment

[9] These are effectively "closed end" mutual funds. This is what has happened in Czechoslovakia in response to the opportunities created by the voucher mass privatization scheme. "Open end" mutual funds on the other hand require a law of trusts and a highly liquid stock market. As such they are likely to be unsuitable for PCEs in the early stages of their transformation.

trusts, a large part of the nation's personal savings would lie "useless" at the monobank need not be feared. First, it is better for these savings to lie "useless" than for them to be wasted as a result of incompetent lending by commercial banks. Second, the savings can be exported and invested abroad via foreign investment funds. Third, savings can also be mobilized by the issuing of securitized debt and equity (commercial paper and shares). Initially the demand for such instruments may be relatively small, but the total unavailability under a Simons-type financial system of bank credit, which by definition is "soft" under PCE conditions - particularly as regards state owned enterprises (SOEs) - might change SOEs attitude to privatization (which would become one of the few ways of obtaining outside financing) and to the issuing of securitized debt[10].

Finally, if it is not the aim to develop a western style banking system, but rather to move towards a Simons-type financial system, then the various proposals for a write-off of SOE debt [Begg and Portes 1992, Schmieding 1991, Williamson 1992] make sense. Writing off the debts of SOEs entails recapitalization of the banks by the state. Once a fractional reserve two tier banking system exists - however immature it may be - commercial bank managements need to be largely independent of the state as regards their credit decisions. Recapitalization therefore means that the state effectively allows two independent sets of agents (the managements of the banks and the SOEs) to determine its expenditures. Under such circumstances, once the precedent of a supposedly "one-off" debt forgiveness has been set, the belief that it will be repeated (again and again) may become strong. The costs of proving that the

[10] Thus in Poland, for example, SOEs have been unwilling to issue securitized debt, as the failure to repay it when due makes them automatically subject to bankruptcy proceedings, whereas the accumulation of inter-enterprise arrears does not [Rostowski 1993].

initial debt write-off is not a precedent could be very high.

In the absence of a two tier banking system, and in the absence of any intention of creating one, debt forgiveness becomes a simple matter. SOEs have their debts to the monobank written off and replaced by government debt on the asset side of the monobank's balance sheet. Since the SOEs and the monobank all belong to the state this is a pure book-keeping operation without any economic significance, as long as the SOEs did not have a large degree of operational and financial autonomy at the time they incurred their debts (i.e. as long as we are still in the highly centrally planned phase of a PCE in transition)[11]. Once the debt has been written off, the monobank is banned from any further lending to non-government[12]. The one-off nature of a debt forgiveness carried out in this way would be fairly credible.

If the PCE has reached the transitional stage in banking system evolution, evolution towards a Simons-type financial system could take place as follows: first, banks could be split into WPC and investment trust operations; second, WPCs would be required to increase their reserves over time until they had achieved 100% backing. At the same time they would transfer non-reserve assets to the investment trust parts of the old commercial banks. Depositors would be required to choose whether their money was to remain on deposit in WPCs, which charged for their services, or to be transformed into shares in the investment trust companies issuing from the original commercial bank. If such a financial system was combined with a

[11] This is why debt write-off made much more sense for the ex-GDR and Czecho-Slovakia in 1990 than it did for market socialist economies such as Hungary and Poland.

[12] Thus all subsidies to SOEs become transparent, and the central bank covers the budget deficit openly by creating money to extend credit to government, rather than hiding it by extending unrepayable credit to banks or SOEs. Stabilization is then effected by making central bank lending to government illegal.

currency board one would have a highly stable monetary system.

CHOOSING AN APPROPRIATE MONETARY RULE

1. The case for a Monetary Rule

Ever since the writings of the currency school in England in the 1840s economists have been aware that the broad money supply tends to vary in a pro-cyclical way, either causing or at the least increasing the amplitude of the business cycle [Schwartz, 1989]. However, attempts by central bank authorities to counter this tendency through discretionary policy intervention are often mistimed, and result only in its exacerbation. Hence the belief that a rule should be established for the behaviour of the monetary base (or central bank money). These rules assumed the gold standard (i.e. a fixed permanently exchange rate) and suggested a relationship between domestic central bank money and either the level of, or changes in, the international reserves (in gold) of the central bank [e.g.Simons, 1936]. PCEs seem to be particularly in need of a monetary rule of this sort to provide a nominal anchor for their monetary systems for two reasons: first, their central banks have little experience in conducting monetary policy in an open economy with a convertible currency, because monetary policy was previously subordinate to physical planning, the economy was closed and/or the currency was not convertible. Second, the transition is the "macroeconomic regime change" par excellence, making the conduct of policy on the basis of behaviourial models of the economy impossible. As a result policy has to consist in choosing values for those parameters which one can determine (inevitably fairly arbitrarily), and establishing rules which ensure that the economy adjusts to these parameters - hopefully as quickly and painlessly as

possible. Third, many PCEs enter the transformation in a state of very high inflation.

Successful stabilization of very high inflation usually involves fixing the exchange rate of the domestic currency, at least for a short period of time. This is because very high inflation causes people to save on real balances - on which they have to pay the inflation tax. Fixing the exchange rate means that for at least a short period of time people know that the foreign exchange value of the domestic currency will be stable. This can cause the demand for the domestic money to increase sharply, so that a virtuous circle develops: increased demand for domestic money ends the "flight from domestic money" which is fuelling very high inflation - as inflation falls the demand for money increases further - and so on [Dornbusch and Simonsen, 1988].

A key problem is how to maintain credibility for the new fixed exchange rate without starving the economy of the greatly increased real money balances now desired. If the authorities fail to accommodate this increased demand for money by increased supply, then in the absence of perfect capital mobility, they will cause very high real interest rates to prevail. These can only be avoided if prices fall to such an extent that the given nominal money supply satisfies the demand for real balances at the new low rate of inflation[13]. If on the other hand, the authorities increase the supply of money rapidly the danger is that they will undermine the credibility of the stabilization. Caught on the horns of this dilemma the authorities usually try to steer a middle course, which causes an information and control problem. It is impossible to know whether high interest rates mainly reflect liquidity shortage (in which case

[13] To make things more difficult the domestic inflation rate then needs to be negative for a certain period as prices fall.

the nominal money supply should be increased), or the lack of credibility of the exchange rate (in which case the nominal money supply should be tightly controlled).

A solution to this problem would be the adoption of a monetary rule strictly relating the supply of the monetary base to international reserves. However, the kind of monetary rule suitable for a given PCE largely depends on the extent to which its banking system has evolved from the classical Soviet-type monobank towards a fully fledged two tier Western-type system, since this determines the relationship between the monetary base and the broad money supply. We address this question in the Sections 7 to 10.

2. The reserve accumulation problem

However, the first problem facing a PCE wishing to base monetary system on a monetary rule is how to accumulate adequate reserves to back the currency fully. The exchange rate needed may result initially in a very undervalued currency. In an economy, such as that of most PCEs, in which the currency has for a long time been inconvertible and where prices have been state administered, finding the right level at which to fix the exchange rate is particularly hard. The fact that most prices have been fixed by the state means that a degree of "corrective inflation" resulting from the adjustment of prices to market clearing levels and the elimination of the monetary overhang is unavoidable. Yet the degree of corrective inflation will itself depend on the exchange rate, as the domestic prices of traded goods will depend on world prices and the exchange rate. The high degree of initial undervaluation which is likely to be necessary to ensure a high level of backing of the money supply may lead to

high inflation and recession during the period of reserve accumulation [Rostowski 1992][14].

It is, of course, possible to follow different monetary rules, to establish for example a "fractional monetary rule" or a "marginal monetary rule". In the first the targeted money aggregate (e.g. domestic currency or broad money) would be only fractionally backed by foreign currency (say 50%), while in the second, only increases in domestic currency would be backed, but these would be 100% backed. The advantage of both systems over 100% backing is that a far smaller amount of foreign currency has to be obtained by the country, so that a smaller balance of payments surplus needs to be generated. The disadvantage of both systems is that confidence in the domestic currency and the fixed exchange rate would be proportionally smaller. For a fractional monetary rule to be credible, the fractionality of the backing has to be maintained also during periods of contraction of international reserves. In order to avoid the risk of abrogation of international convertibility of the national currency, one could have a monetary rule which was marginal during periods of international reserve expansion, while during periods of international reserve contraction it would follow a fractional backing rule. The proposal put forward in Rostowski [1992] for a currency board for a parallel currency for Latvia has many of the advantages of the "marginal currency board" while avoiding its disadvantages.

[14] The problem resulting from the need for reserve accumulation does not stem mainly from the size of the required payments surplus. Thus during the Polish stabilization program, by the time international reserves and the real value of the money supply ceased growing in October 1990, cash was 160% backed and cash and foreign currency deposits together were 70% backed. Although Poland did not start its stabilization programme with zero reserves, this was achieved by Poland running a trade surplus equivalent to only some 2.7% of GDP during 1990, which gives an indication that the trade surplus which might be needed by a PCE to back its currency need not be very large.

3. The Monetary Rule for a Monobank

All money in such a system is central bank money, and it can take one of three forms: 100% backed deposits at a specialised bank, deposits at the state bank itself, or cash (also a central bank liability). If there existed an economy with a monobank system and a convertible currency then the monobank could quite easily adopt a monetary rule: it would manage its deposit liabilities so as to ensure their convertibility on demand into domestic currency[15] and also so as to ensure that all domestic currency was fully, fractionally or marginally backed (whichever approach had been adopted - see next section). An alternative would be for the monobank to adopt some rule for the fractional backing of all money[16] (deposits as well as currency), or for the backing of increases in money, with international reserves. The banking system in Czecho-Slovakia was not dissimilar to such a "monobank with convertibility" at the beginning of the economic reform in that country in early 1991, with one foreign trade bank, one savings bank, one investment bank and one commercial bank in each of the two constituent republics of the Federation.

A key question facing policy makers in such a situation is how to combine maintenance of the monetary rule with the evolution of the banking system towards a two tier competitive system of the western kind? On the other hand if the ultimate aim is the creation of a Simons-type financial system, then the traditional Soviet-type

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[15] This is not the trivial point it may appear at first sight. In Russia at the time of writing there is a severe cash shortage, resulting from loose credit policy in a hyperinflationary environment, combined with the inability of the printing presses to keep up with the demand for cash. The result is the maintenance by the Central Bank of Russia of the inconvertibility of business deposits into cash for most purposes (exceptions being such uses as the payment of wages).

[16] Simons [1936] suggested such an approach for the US (the backing would, of course, have been in gold).

monobank provides an excellent starting point. The main problem facing the authorities, apart from the development of WPCs described in Section 4, would be obtaining sufficient reserves to back the central bank money in the system[17].

4. The case against a Currency Board in a PCE with a Transitional Banking System

Hanke and Schuler [1991] have proposed such a system as the solution to Yugoslavia's chronic high inflation problems[18]. In a currency board system all domestic currency has to have a fixed amount (over 100%) of backing in foreign currency denominated assets or foreign cash. The Board always stands ready to exchange domestic currency into the foreign currency to which the domestic currency is fixed (henceforth called the "metropolitan currency"). A pure Humean mechanism then ensures that in the medium term prices cannot change but as in the "metropolitan country". In the short term, if prices of traded goods are lower than in the metropolitan country, the reserves of the Currency Board will increase, increasing domestic cash and therefore - through the standard money multiplier[19] - the domestic money supply and thus the prices of traded goods. If the process goes too far and prices of traded goods exceed those in the metropolitan country, the mechanism goes

[17] 100% international reserve backing of the monetary base, would imply the export of a large proportion of domestic savings, which would be likely to be criticised (see Section 4 for a discussion of this question).

[18] Also Hanke, Jonung and Schuler [1992].

[19] With or without obligatory minimum reserve requirements. Hanke and Schuler assume that liquid reserves are set voluntarily by banks.

into reverse, causing the domestic money supply to decline, so that prices fall[20]. The fact that only a fraction of the backing is held in foreign cash, while the rest is held in foreign interest bearing assets, means that the costs, in terms of seigniorage paid to the metropolitan country are significantly lower than they would be otherwise[21].

The low level of banking skills during the transitional period in PCEs makes the implementation of a classical currency board system in its unadulterated form, as proposed by Hanke and Schuler, quite unsuitable. For a PCE to move directly to a currency board means that the monetary system is switched from being one in which the central bank is lender of first resort to one in which there is no lender of last resort whatever[22]. In the Hanke and Schuler approach, only the cash part of the domestic money supply is backed, and banks are entirely free to decide on their own reserve ratios - i.e. it is entirely up to them to decide to what extent they will back their deposit liabilities with domestic currency (which itself is to be 100% backed by foreign currency) and to what extent they will back deposits with the credits which they extend to borrowers.

As a result, irresponsible credit expansion by the banks on an excessively small reserve (cash) base could lead to a run on bank deposits, once it was realised how small the cash reserves of the banking system are. Since a currency board cannot be

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[20] The simplicity of the mechanism might be largely lost if there were a significant inflow of short-term capital (as has happened in 1991-2 in Argentina). This, however, is unlikely initially in the case of most PCEs because of a lack of credibility of the new monetary regime, particularly to foreigners.

[21] And lower than if foreign currency itself were actually used as money within the country.

[22] In British colonies which had currency boards most banks were branches of United Kingdom banks and thus had access to the Bank of England as lender of last resort via their headquarters.

a lender of last resort to the banking system, the board would then be faced with the choice of supplying unbacked currency to the banks (i.e. suspending the currency board system), or of allowing the collapse of many banks (and possibly of the banking system as a whole). This is always the problem with a currency board, and indeed it is the key to the discipline it exerts on the banks. However, the danger is magnified when a currency board is grafted onto a banking system with practically no liquidity management skills. The consequence of incompetence on the asset side could be even more dangerous, leading to not just the ill-liquidity but the actual insolvency of the bulk of the banking system (see Sections 2 and 3).

5. A "Broad Money" Rule for PCEs with a Transitional Banking System

In PCEs with a transitional banking system of the type described in Section 1, what I call a "broad money rule" may be more suitable than a classical currency board. This consists in the central bank committing itself to maintain some given level of backing of the whole broad money stock. Under a "fractional broad money rule" the exchange rate is set so as to generate international reserves which will give a desired level of backing, after which the money supply is allowed to expand, at the margin, at the rate allowing the maintenance of that ratio[23]. Under a "full" broad money rule, 100% of the domestic money supply is backed by foreign assets. This is

[23] Under a "marginal fractional broad money rule" total domestic money is allowed to grow as some multiple of the increase in international reserves (let us say 2). The disadvantage of this system, as stated in the previous section, is that if the country started off with almost no international reserves and if, after a period of increasing reserves and money there comes a period of loss of reserves due to some external shock, then the money supply needs to be reduced more sharply for a given fall in international reserves than it was allowed to expand while international reserves were increasing, for the maintenance of convertibility at the fixed parity is to be ensured (i.e. if the country is not to run out of reserves).

the system which obtained in the second half of 1992 in Estonia.

If the relationship between broad money and central bank money depends on an obligatory reserve ratio (augmented by a capital/asset ratio), then the central bank needs to maintain a relationship between central bank money and international reserves such that the relationship between international reserves and broad money to which the central bank is committed is indeed adhered to. So that if the degree of backing of central bank money with foreign assets was more than 100%, then the degree of backing of broad money with foreign assets would be higher than the obligatory reserve ratio. In less sophisticated systems, changes in deposit money can be controlled via changes in credit limits which are themselves dependant on changes in international reserves.

The achievement of high levels of backing for the domestic money supply need not necessarily involve the generation of huge payments surpluses, particularly in countries which have suffered from very high inflation. Thus in the case of Poland total broad money (zloty cash and deposits and hard currency deposits) was almost 40% backed by international reserves when it reached its maximum in 1990. This was achieved by Poland running a trade surplus equivalent to some 2.7% of GDP during the year[24].

Furthermore, as described in Section 9, an arrangement by which a large part of a country's money supply is backed by foreign assets need not mean that the country must pay a large amount of seigniorage to the foreign government whose

[24] Had the nominal money supply not been allowed to grow after this period, Poland would have saved herself a further 60% inflation during 1991.

currency backs the domestic money supply. This is because a significant part of the backing can be held in the form of secure interest bearing assets (e.g. government bonds) of the metropolitan country, so that the backing is not bought from the metropolitan country (seigniorage), but merely constitutes a loan to it. If deposits as well as cash were backed by foreign assets, the assets concerned could be allowed to be less liquid than in the case when they were backing only cash.

An arrangement of this kind does, of course, imply the export of a significant part of a country's household and enterprise savings, as we noted in Section 4. The proportion will depend on the share of savings which actors wish to hold in money form, and the proportion to which broad money is backed. For this reason the "broad money rule" monetary system is likely to be criticized by those pointing to the great shortage of capital in PCEs, which need to restructure their economies profoundly after decades of misallocation of investment by central planners. However, against this must be set the fact that the original problem which needs to be solved is that the newly liberalized banking system is also incapable of allocating credit efficiently. Savings allocated within the country via the banking system are therefore also likely to be wasted. By reducing the share of deposit money backed by domestic credits, and increasing the share backed by foreign assets, a monetary system based on "broad money rule" reduces the amount of waste involved. Until credit allocation skills have been developed in the banking system it is therefore better for an important part of savings deposited in banks to be invested abroad, ensuring in this way at least the stability of the monetary system (and the avoidance of the loss of the domestic savings).

In this initial period domestic investment would be financed mainly by equity

participation (i.e. in most cases by ploughback of profits and the establishment of partnerships[25]). If the aim is to develop a western style banking system then the key policy question is at what rate and how to liberalize the tight regulations described above, so that the banks' role in the allocation of savings within the country can grow safely.

Finally, it is worth noting that the difference between a 100% broad money rule and a financial system of the type proposed by Simons is not large. Although nominally denominated assets exist in the former on a large scale and do not in the latter, they are mostly held against foreigners and therefore do not constitute liabilities of domestic economic actors. Fractional broad money rules would be closer to 100% reserve banking, the closer the amount of foreign backing of broad money was to 100%.

6. The Argentine-type "High-powered Money Rule"

This is the case where the provision of central bank reserve money to banks is made dependant on the balance of payments position of the country, each dollar of international reserve accumulation generating a given number of dollars of reserve money. If one dollar of reserve money was made available to the banking system for each dollar of international reserves accumulated, one would have something very close to a currency board mechanism, except that not only cash but also commercial bank reserves at the central bank would be backed by foreign assets[26]. If the system

[25] With both unlimited and limited liability. Public companies with widespread share ownership are unlikely to develop on a large scale initially, because of a lack of track record.

[26] A strict currency board would not accept commercial bank deposits.

were run by a central bank then it could, without any institutional or legal measures change the rule it was following[27]. If more than one dollar of reserve money was made available to the banking system for each dollar of international reserves, then one would have a "fractional" or "marginal" high-powered money board arrangement. In either of these cases the interest rate on central bank loans to commercial banks would be determined exclusively by the need to achieve the pre-announced relationship between reserve money and international reserves (or between the increments in each of these). High reserve and capital/asset ratios would be required to ensure the safety of deposits. In Argentina the reserve requirement on foreign currency deposits is 3%, giving a money multiplier of 33. With a fixed dollar/new peso parity of one to one and full convertibility of the peso, the dangers implicit in this arrangement are clear. Indeed, the real appreciation of the peso has recently been so large as to cast serious doubts on the sustainability of the system. This kind of monetary rule would clearly only be suitable for a PCE in which the banking system and banking skills had reached an almost western level of development, for example Hungary.

[27] As such a pseudo-currency board of this kind would have less credibility than a fully fledged board. In Argentina the law would need to be changed for the high powered money rule to be abandoned. Since this would take time, enabling massive capital flight, Argentina seems to be very pre-committed to the rule.

CONCLUSIONS

The stability of the Western banking system since the war still allows one to accept it as the basic model towards which PCE financial systems will probably ultimately evolve[28]. Nevertheless, the experience of PCEs since 1990 and the experience of fragile banking systems subjected to high degrees of political interference in Latin American and African countries, suggests that haste should be made very slowly. In other words, we should be well advised to incorporate significant elements of the Simons-type into the financial system of PCEs. The approach to banking system reform which has become pretty well universal in PCEs, and which consists in creating, usually out of bits of the old monobank, autonomous state owned commercial banks which are supposed to be guided by the profit motive, and which are intended to be ultimately privatized, seems fraught with danger. These state commercial banks (SCBs) not only lack private owners, and therefore the motivation to be truly profit maximizing, they also lack basic banking skills, and are often burdened with the old monobank's bad loans[29]. Being state owned there is an implicit state guarantee not only for their deposits but also for their capital (SCB losses are part of the quasi budget deficit even if there is no formal write-down of loans or recapitalization). Most important, once the possibilities of extracting money from the state budget have been exhausted, the PCE banking system is often seen as

[28] Simons was writing in 1936. Readers of this paper in 1995 may have a perspective which is closer to Simons' than the one I am able to adopt at today.

[29] Even when, as in Poland, the bad loans were largely "liquidated" by the hyperinflation of 1989, the banks reproduced these bad loans during the high real interest rate stabilization period of 1990-2.

a source of "directed" soft financing by various populist and lobby groups[30].

A number of conclusions follow. If the PCE concerned is lucky enough to still have its monobank intact, it should not try to create the standard two tier Western-style banking system by hiving-off SCBs. Rather it should create competitive WPCs, either by splitting the monobank (the provision of warehousing and payments services should not be beyond the ability of the market socialist enterprises which will be created in this way) or, better, by allowing private WPCs to be formed and for these to create their own clearing and settlement centres if they wish. Initially no domestic banks would be allowed. Savings would be mobilized either through equity participation - ploughback, share floatation, investment trusts, foreign direct investment - or through non-intermediated debt (i.e. commercial paper).

Domestic banks would only be allowed to begin operations slowly. They would be obliged to operate subject to very high reserve and capital/asset ratios (from 25% up). Since there would be no lender of last resort in the system, reserves could be drawn down to meet liquidity needs, but such a move would render the bank concerned subject to a tightening of supervision by the bank supervisory authority. It would also be made very clear from the start that deposits at banks (unlike those at WPCs) were in no way guaranteed by the state. If a third tier of non-banks outside the authorities' supervisory system came into existence, the fact that the companies concerned had no legal right to take deposits (but were merely borrowing under the ordinary commercial laws with a promise to repay on demand), should be enough for it to be clear to depositors what risks were involved.

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[30] The hundreds of billions of rubles of credit made available to SOEs in Russia in 1992 are a good example, as are the subsidized credits for agriculture granted throughout Central and Eastern Europe.

Foreign banks of good repute setting up branches in the PCE, and subject to the supervision of their own central bank, would also be allowed to operate with minimal local supervision, as long as the capital of the of the whole bank was legally subject to make good the losses of its local branches. Since they would not be required to satisfy the stringent conditions facing native banks, foreign banks would have a considerable competitive advantage. There is no doubt that the banking system might be taken over by foreign banks. But given the argument that a secure banking system is vital for macroeconomic stability, and that macroeconomic stability is vital for a successful transition to a market economy, then some PCEs may find it most efficient to import foreign banks to create their banking systems, just as they have to import foreign machinery for their productive investments. The law of comparative advantage does not apply only to goods.

In the final stage of banking system evolution in a PCE, reserve and capital/asset requirements for domestic banks could be slowly reduced towards western levels, as the bank supervisory authority became more confident of its own supervisory skills and of the banking skills of the commercial banks. However, as long as a monetary rule was in force, i.e. as long as there was no lender of last resort, these ratios would need to be higher than in systems with a central bank. A strategic decision would then be needed with regard to the WPCs. Allowing them to reduce their reserve ratios, i.e. to become banks, would mean accepting the transformation of the system into one based entirely on classical western two tier banking system lines.

Because the banking system is a major weak point of monetary control in PCEs it is important that any monetary rule which is adopted should embrace a broad

money aggregate, as long as the structure and skills of the banking system are such as to render very risky indirect control of the whole money stock through control of currency or high powered money alone. As the skills of the banks improve the monetary rule can be changed from a "broad money rule", first to a "high powered money rule" and finally to a currency board.

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